

REMARKS

This is intended as a full and complete response to the Office Action dated March 18, 2004, having a shortened statutory period for response set to expire on June 18, 2004. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-44 remain pending in the application.

Claims 1-25 stand rejected under 35 USC 103(a) as being unpatentable over *Bearden* (U.S. Patent No. 6,167,965) in view of *Tubel* (U.S. Patent No. 6,268,911). In the rejection, the Examiner writes:

“However, *Bearden* fails to disclose a feedback system comprising a flow controller disposed in the flow line and a control unit. *Tubel* discloses ... a feedback system (Fig. 5), comprising a flow controller in the fluid line and a control unit (column 12, line 8 [--] column 13, line 12).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the teaching of *Bearden* with the teaching of *Tubel* since pump efficiency for the improved down hole applications is controlled, monitored, and dangerous operating conditions for improved down hole applications is monitored and avoided.”

Applicant respectfully traverses the rejection.

Bearden or *Tubel*, do not teach, suggest, or disclose a feedback system, comprising “a pump; a flow controller disposed in the fluid line; and a control unit ... configured to control operation of the flow controller” of claim 1 or a feedback system, comprising “a pump; ... a flow controller disposed in the fluid outlet line; ... and a control unit ... configured to ... issue a control signal to the flow controller” of claim 15.

Bearden teaches away from a combination with *Tubel* to add a flow controller in fluid outlet line 43 by teaching that variable speed motor controller 412 can be used to control the flow rate of pump 11 “without physical modification of the downhole unit.” (*Bearden*, col. 10, lines 35-38.)

Tubel also teaches away from a combination with *Bearden* to add a flow controller in fluid outlet line 43 of *Bearden* by teaching a downhole pumping system where the flow is controlled by varying the speed of a pump rather than disposing a flow controller in a fluid line. *Tubel* discloses a chemical injection system controlled by

surface control system 414 and/or downhole control system 417,418 (418 used in specification, 417 used in Fig. 5). *Tubel* discloses that a submersible pump may be used to inject the chemicals. (*Tubel*, col. 12, lines 19-22.) *Tubel* provides detail as to control of the pump in Fig. 8, which illustrates the controller connected directly to the pump and is described as follows:

“Based on that sensed information monitored by controller 522, the controller will instruct a pump or other metering device 524 to maintain, vary or otherwise alter the amount of chemical and/or type of chemical being added to the surface treatment system 520.” (*Tubel*, col. 15, lines 37-42.)

This demonstrates that *Tubel* is controlling the flow rate by controlling the speed of the pump, as does *Bearden*. This aspect is further elaborated on by the description of Fig. 11, where *Tubel* provides:

“In one application, the sensors 720 measure vibration and temperature of the ESP [electric submersible pump] 714. It is desirable to operate the ESP at a low temperature and without excessive vibration. The ESP 714 *speed* is adjusted so as to maintain one or both such parameters below their predetermined maximum value or within their respective predetermined ranges.” (*Tubel*, col. 17, lines 40-45, emphasis added.)

Thus, neither *Bearden* nor *Tubel* contain a motivation to combine and each reference teaches away from combination with the other. Therefore, claims 1 and 15 are patentable over *Bearden* in view of *Tubel*. Claims 2-14 and 16-25 are also patentable over *Bearden* in view of *Tubel* since they depend from claims 1 and 15, respectively.

Claims 26-44 stand rejected under 35 USC 103(a) as being unpatentable over *Bearden*. In the rejection, the Examiner writes, “Applicant’s arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.” However, Applicants note that no “new grounds” of rejection have been provided with respect to claims 26-44. Rather, the Examiner merely repeats the same rejection from the previous Office Action. Accordingly, the rejection is believed to have been overcome for the reason given in Applicants previous response, which is hereby incorporated by reference.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant’s disclosure than the primary references cited in the office action. Therefore, Applicant believes that a

detailed discussion of the secondary references is not necessary for a full and complete response to this office action. In conclusion, the references cited by the Examiner do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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